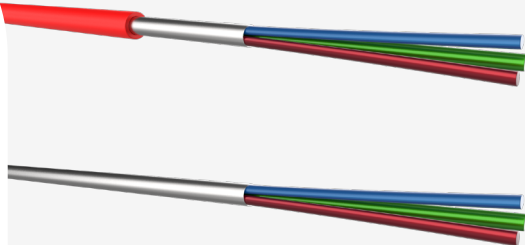




# Trisens

## Technical Datasheet

Trisens is a thin and flexible mini sensing product, developed and launched by NBG which offers great performances in accurate Temperature, Strain, Acoustic and many more measurement features. Various fiber types can be combined to fulfill additional jobs like data transmission or fiber loops. The Standard version comes with three Singlemode fibers which covers a lot of application in just a 1.3 mm outer diameter metal tube. With the maximum accuracy in manufacturing, this sensor element is able to handle even the tiniest deviations and changes for various measurement techniques. Trisens is manufactured according to the highest quality standards in this industry.



**Data transmission**



**Loop fiber**



**Acoustic sensing (DAS)**

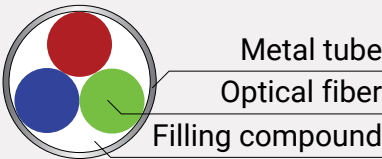


**Strain sensing**

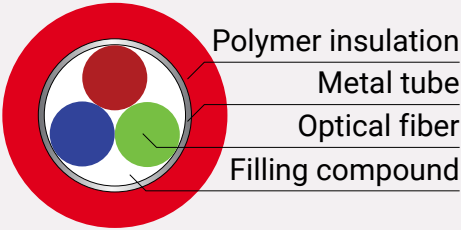


**Temperature sensing**

### Trisens Core



### Trisens Cable



Alternative configurations and layers available upon request

## Product Features

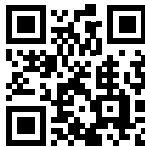
### Trisens Cable

Trisens core with additional polymer layer protection for easy integration into bigger cable assemblies or direct deployment. Polymer material and thickness can be picked based on desired specifications.

### Trisens Core

1.3mm OD sensing core with 3 tight buffered fibers (G.657 A1), ready of acoustic, strain or temperature sensing.

### Trisens Distribution Head Datasheet



## Product Specification

(without polymer cladding)

Values stated at room temperature

(+20°C/68°F)

### General Characteristics

Total cable weight	4.68 kg/km	3.145 lbs/kft
Outer diameter	1.30 mm	0.051"
Number of fibers	3	
Type of fiber	G.657 A1	

### Mechanical Characteristics

Ultimate tensile strength*	> 448 N	> 100 lbs
Min. bending radius	> 50mm	> 1.97"

### Optical Characteristics

Max. loss at 1310nm	< 0.37db/km
Max. loss at 1550nm	< 0.30 db/km

### Geometrical Characteristics

Outer diameter	1.30 mm	0.051"
Inner diameter	1.05 mm	0.041"
Material	High corrosive resistant steel	

### Brillouin Characteristics (at 1550nm)

Strain sensitivity dfB/dε	497 MHz/%
Temperature sensitivity dfB/dT	1.68 MHz/°C

### Electrical Characteristics

Ohmic resistance	3.03 Ohm/m	0.924 Ohm/ft
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- Connectors for both ends available on request
- Length based on customer request
- Meter marking on sheath printed
- Various sheath colors and marking options available upon request



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## Packaging and single Length

Standard packaging consists of wooden reels in a standing position fixed on pallets. The outer layer is protected with bubble foil and flexible cardboard. Optionally, spools provided by customer can be used. Produced single lengths are tailored to meet customer requests.